

Table 3
Switched Access Exogenous Cost Changes

	Exogenous Cost Changes	
	CL	TS
1984/85	\$0	\$0
1985/86	\$11,989	(\$193,799)
1986/87	(\$84,844)	(\$239,915)
1988	(\$585,494)	(\$68,747)
1989	(\$49,731)	(\$210,351)
1990	(\$25,660)	(\$144,856)
1991	(\$205,092)	(\$290,651)
1992	(\$194,685)	(\$203,714)

Table 4
Switched Access Demand Data

	Unadjusted Minutes		WATS DA Minutes
	CL	TS	
1984/85	183,602,357	183,108,361	23,462,547
1985/86	199,946,832	199,487,105	24,541,446
1986/87	198,878,262	226,888,173	28,515,202
1988	244,467,327	266,721,218	22,566,955
1989	279,513,375	295,439,187	16,732,120
1990	305,839,946	313,182,502	9,160,063
1991	326,675,691	330,060,199	5,693,207
1992	349,305,191	349,150,487	3,507,839

**TREND LINE REGRESSION
COMPUTATION OF X FACTORS**

Beginning trend line rates for CL/MOU and TS/MOU are computed in Chart TREND. On a historical basis we compute the X in the Balanced 50/50 CL PCI formula, the X in the TS PCI formula and the unitary X in the Balanced 50/50 CL PCI formula.

	CL	TS	Unitary
Historical Xs			
Balanced 50/50 CL PCI	2.96%	NA	2.67%
TS PCI	NA	3.44%	NA

DATA USED IN REGRESSIONS

This chart presents the adjusted CL/MOU and TS/MOU rates as computed in Chart RATE. The Total Switched/MOU rates are the sums of the TS/MOU and CL/MOU rates. CL MOU/Line is computed as the CL MOU adjusted for exogenous stimulation computed in Chart RATE divided by the Subscriber Lines. The numbered columns on this chart correspond to the numbered regressions on Chart REG.

	(1) CL/MOU	(2) TS/MOU	(3) ToTSW/MOU	(4) CL MOU/LINE	TREND
6/84-5/85	\$0.0391	\$0.0213	\$0.0604	1.3880	7
6/85-5/86	\$0.0429	\$0.0262	\$0.0691	1.3846	19
7/86-6/87	\$0.0458	\$0.0258	\$0.0716	1.4258	32
1988	\$0.0397	\$0.0263	\$0.0659	1.6036	50
4/89-12/89	\$0.0383	\$0.0262	\$0.0645	1.6891	63.5
1990	\$0.0366	\$0.0251	\$0.0617	1.7257	74
1991	\$0.0379	\$0.0253	\$0.0632	1.7366	86
1992	\$0.0376	\$0.0236	\$0.0612	1.8114	98
Log Trend Annual Growth	-1.78%	0.58%	-0.90%	4.03%	
Log Trend R-square	0.4132	0.0464	0.1624	0.9492	

DATA USED IN REGRESSIONS

This chart presents the adjusted CL and TS values for Revenue and MOU, as well as the Subscriber Lines.

	CL REV	CL MOU	TS REV	TS MOU	LINES
6/84-5/85	\$5,967,541	152,635,057	\$3,740,115	175,623,800	109,965,483
6/85-5/86	\$6,733,220	156,897,886	\$4,741,219	181,022,158	113,316,244
7/86-6/87	\$7,582,088	165,486,202	\$4,862,519	188,793,193	116,063,662
1988	\$7,740,057	195,080,628	\$5,591,500	212,838,842	121,654,374
4/89-12/89	\$8,117,457	212,142,675	\$5,875,300	224,229,912	125,595,961
1990	\$8,278,060	226,343,098	\$5,818,548	231,777,107	131,160,067
1991	\$8,840,220	233,306,168	\$5,970,354	235,723,325	134,343,866
1992	\$9,369,062	249,310,072	\$5,892,639	249,199,654	137,634,286

DATA USED IN REGRESSIONS

This chart presents the GNP-PI data used in the calculations. The source is the Survey of Current Business for the months shown.

	GNP-PI	Survey of Current Business Issue	
4Q/83	227.6	2/85	Table 7.2
4Q/84	237.1	2/85	Table 7.2
4Q/84	110	2/86	Table 7.1
4Q/85	113.8	2/86	Table 7.1
2Q/86	114.7	9/87	Table 7.1
2Q/87	118.6	9/87	Table 7.1
3Q/87	119.7	12/88	Table 7.1
3Q/88	124.9	12/88	Table 7.1
2Q/88	123.3	9/89	Table 7.1
2Q/89	129.3	9/89	Table 7.1
4Q/89	131.2	3/91	Table 7.1
4Q/90	137.5	3/91	Table 7.1
4Q/90	114.8	3/92	Table 7.3
4Q/91	118.7	3/92	Table 7.3

LOGARITHMIC TREND REGRESSIONS

This chart presents the regression results of logarithmic time trend regressions on the CL/MOU rate, the TS/MOU rate, the Total Switched/MOU rate and the CL MOU/Line data presented in Chart DATA. The numbering of the regression output on this chart corresponds to the numbering of the columns on Chart DATA.

(1) CL/MOU, 1984-1992

Regression Output:

Constant		0
Std Err of Y Est		0.0626
R Squared		0.4132
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	-0.0015	-3.1479
Std Err of Coef.	0.0007	0.0449

(2) TS/MOU, 1984-1992

Regression Output:

Constant		0
Std Err of Y Est		0.0763
R Squared		0.0464
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.0005	-3.7179
Std Err of Coef.	0.0009	0.0548

(3) TotSw/MOU, 1984-1992

Regression Output:

Constant		0
Std Err of Y Est		0.0597
R Squared		0.1624
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	-0.0007	-2.6994
Std Err of Coef.	0.0007	0.0428

(4) CL MOU/LINE, 1984-1992

Regression Output:

Constant		0
Std Err of Y Est		0.0268
R Squared		0.9492
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.0033	0.2849
Std Err of Coef.	0.0003	0.0192

TREND LINE ESTIMATES OF ACCESS RATES AND DEMAND

This chart presents the trend line estimates of the CL/MOU, TS/MOU and Total Switched/MOU rates and the trend line estimate of CL MOU/Line, using the regression output from Chart REG.

	CL/MOU	TS/MOU	ToTSW/MOU	CL MOU/LINE
6/84-5/85	\$0.0425	\$0.0244	\$0.0669	1.3607
6/85-5/86	\$0.0417	\$0.0245	\$0.0663	1.4157
7/86-6/87	\$0.0409	\$0.0247	\$0.0657	1.4777
1988	\$0.0398	\$0.0249	\$0.0648	1.5681
4/89-12/89	\$0.0390	\$0.0250	\$0.0641	1.6395
1990	\$0.0384	\$0.0252	\$0.0636	1.6973
1991	\$0.0378	\$0.0253	\$0.0631	1.7658
1992	\$0.0371	\$0.0255	\$0.0625	1.8371

Computation of Adjusted 1992 Common Line /MOU Rate

1992 Common Line	11.25%	
Access Rev (CL)	\$9,481,498	As reported
Net Return	\$1,800,749	As reported
ANI	\$16,765,602	As reported
FIT/SLIT	0.593983	As reported
ROR	10.74%	Net Return / ANI
Net Return at 11.25%	\$1,886,130	11.25% * ANI
Earnings above 11.25%	(\$85,381)	Net Return at 11.25% - Net Return
Revenue above 11.25%	(\$136,096)	(1+FIT/SLIT) * Earnings above 11.25%
CL Rev at 11.25%	\$9,617,594	Access Rev (CL) - Revenue above 11.25%
Inside Wire	\$246,812	As reported
IW ANI	\$211,853	As reported
IW Excess Rev	(\$1,720)	(IW ANI / ANI) * Revenue above 11.25%
IW at 11.25%	\$248,532	Inside Wire - IW Excess Rev
CPE	\$0	As reported
CPE ANI	\$0	As reported
CPE Excess Rev	\$0	(CPE ANI / ANI) * Revenue above 11.25%
CPE at 11.25%	\$0	CPE - CPE Excess Rev
CL less IW & CPE change at 11.25%	\$9,369,062	CL Rev at 11.25% - IW at 11.25% - CPE at 11.25%
COE Cat 3 - Dems	\$0	
COE Cat 3 - Dems less CPE and IW	\$0	
COE Cat 4 - Terms	\$0	
COE Cat 4 - Terms less CPE and IW	\$0	
Acct 662	\$0	
Acct 662 less CPE and IW	\$0	
Acct 645	\$0	
Acct 645 less CPE and IW	\$0	
SPF Phase-Down	\$0	
SPF Phase-Down less CPE and IW	\$0	

Conformance	\$0	
Conformance less CPE and IW	\$0	
High Cost Fund	\$0	
Inside Wire Amortization	\$0	
CPE Phasedown	\$0	
WATS DA: 1986-7	\$0	
Reserve Def Amort	\$0	
Tax Reform	\$0	
Tax Reform less CPE and IW	\$0	
FASB 87	\$0	
FASB 87 less CPE and IW	\$0	
Deferred Tax	\$0	
Deferred Tax less CPE and IW	\$0	
Other	\$0	
Other less CPE and IW	\$0	
Total Cum Exog Cost less CPE and IW	\$0	
CL Rev Adj for Exo Changes	\$9,369,062	
Prem MOU	345,060,714	As reported
Non-Prem MOU	4,244,477	As reported
Total MOU	349,305,191	Prem MOU + Non-Prem MOU
WATS DA	NA	
Tot MOU less WATS DA	349,305,191	
Total Stim MOU =	99,995,119	
Total MOU Adj for Incl of Stim	249,310,072	
Subscriber Lines	137,634,286	As reported

CL/MOU Rate Adj for Exo Changes	\$0.0376	CL Rev Adj / Total MOU Adj
CL/MOU Rate Unadj -	\$0.0271	Access Rev (CL) / Total MOU
CL/Loop Rate Adj for Exo Changes	\$68.07	CL Rev Adj / Subscriber Lines
CL/Loop Rate Unadj	\$68.89	Access Rev (CL) / Subscriber Lines

Computation of Adjusted 1991 Common Line /MOU Rate

1991

Common Line

Access Rev (CL)	\$9,395,161
Net Return	\$1,833,493
ANI	\$16,703,224
FIT/SLIT	0.574498
ROR	10.98%
Net Return at 11.25%	\$1,879,113
Earnings above 11.25%	(\$45,620)
Revenue above 11.25%	(\$71,828)
CL Rev at 11.25%	\$9,466,989

Inside Wire	\$434,598
IW ANI	\$357,382
IW Excess Rev	(\$1,537)
IW at 11.25%	\$436,135

CPE	\$0
CPE ANI	\$0
CPE Excess Rev	\$0
CPE at 11.25%	\$0

CL less IW & CPE change at 11.25%	\$9,030,854
--------------------------------------	-------------

COE Cat 3 - Dems	\$7,766
COE Cat 3 - Dems less CPE and IW	\$7,408

COE Cat 4 - Terms	NA
COE Cat 4 - Terms less CPE and IW	\$0

Acct 662	NA
Acct 662 less CPE and IW	\$0

Acct 645	NA
Acct 645 less CPE and IW	\$0

SPF Phase-Down	(\$119,847)
SPF Phase-Down less CPE and IW	(\$114,325)

All exogenous changes except the HCF are cumulated for all later years. Thus, the effect in 1991 is the amount reported for 1992. The effect in 1990 will be the sum of the 1992 and 1991 amounts, and so on. This adjusts exogenous changes to 1992 levels.

The High Cost Fund, conversely, is cumulated over all previous years. Thus, the 1988 amount is the sum of the reported 1984/85, 1985/86, 1986/87 and 1988 amounts. This amount is subtracted from CL revenue because, beginning in 1989, HCF is no longer recovered in the CCL rate. The HCF is not removed after 1988 for this reason.

All exogenous changes except HCF and RDA are recast to remove the portion of the exogenous change reflected in the CPE and IW categories.

Conformance	NA	
Conformance		
less CPE and IW		\$0
High Cost Fund		\$0
Inside Wire Amortization	NA	
CPE Phasedown	NA	
WATS DA: 1986-7	NA	
Reserve Def Amort		(\$106,762)
Tax Reform	NA	
Tax Reform		
less CPE and IW		\$0
FASB 87	NA	
FASB 87		
less CPE and IW		\$0
Deferred Tax		\$17,641
Deferred Tax		
less CPE and IW		\$16,828
Other		\$6,517
Other		
less CPE and IW		\$6,217
Total Cum Exog Cost		
less CPE and IW		(\$190,634)
CL Rev Adj for		
Exo Changes		\$8,840,220
Prem MOU	321,070,176	
Non-Prem MOU	5,605,515	
Total MOU	326,675,691	
WATS DA	NA	
Tot MOU less WATS DA	326,675,691	
Total Stim MOU =	93,369,523	
Total MOU Adj for		
Incl of Stim	233,306,168	
Subscriber Lines	134,343,866	

CL and TS rates are computed as average revenue per minute of use. Each revenue adjustment (e.g., SLC, Exog) alters the actual rate charged during the period and thus brings about a demand stimulation effect.

CL/MOU Rate Adj for Exo Changes	\$0.0379
CL/MOU Rate Unadj -	\$0.0288
CL/Loop Rate Adj for Exo Changes	\$65.80
CL/Loop Rate Unadj	\$69.93

Computation of Adjusted 1990 Common Line /MOU Rate

1990

Common Line

Access Rev (CL)	\$9,568,617
Net Return	\$1,845,875
ANI	\$16,511,598
FIT/SLIT	0.557129
ROR	11.18%
Net Return at 11.25%	\$1,857,555
Earnings above 11.25%	(\$11,680)
Revenue above 11.25%	(\$18,187)
CL Rev at 11.25%	\$9,586,804
Inside Wire	\$925,192
IW ANI	\$697,707
IW Excess Rev	(\$768)
IW at 11.25%	\$925,961
CPE	\$0
CPE ANI	\$0
CPE Excess Rev	\$0
CPE at 11.25%	\$0
CL less IW & CPE change at 11.25%	\$8,660,843
COE Cat 3 - Dems	\$20,640
COE Cat 3 - Dems less CPE and IW	\$18,646
COE Cat 4 - Terms	\$0
COE Cat 4 - Terms less CPE and IW	\$0
Acct 662	\$0
Acct 662 less CPE and IW	\$0
Acct 645	\$0
Acct 645 less CPE and IW	\$0
SPF Phase-Down	(\$238,599)
SPF Phase-Down less CPE and IW	(\$215,553)

Conformance	\$0
Conformance less CPE and IW	\$0
High Cost Fund	\$0
Inside Wire Amortization	\$0
CPE Phasedown	\$0
WATS DA: 1986-7	\$0
Reserve Def Amort	(\$223,829)
Tax Reform	\$0
Tax Reform less CPE and IW	\$0
FASB 87	\$0
FASB 87 less CPE and IW	\$0
Deferred Tax	\$42,192
Deferred Tax less CPE and IW	\$38,117
Other	(\$181)
Other less CPE and IW	(\$164)
Total Cum Exog Cost less CPE and IW	(\$382,783)
CL Rev Adj for Exo Changes	\$8,278,060
Prem MOU	298,909,557
Non-Prem MOU	6,930,389
Total MOU	305,839,946
WATS DA	NA
Tot MOU less WATS DA	305,839,946
Total Stim MOU =	79,496,848
Total MOU Adj for Incl of Stim	226,343,098
Subscriber Lines	131,160,067

CL/MOU Rate Adj for Exo Changes	\$0.0366
CL/MOU Rate Unadj –	\$0.0313
CL/Loop Rate Adj for Exo Changes	\$63.11
CL/Loop Rate Unadj	\$72.95

Computation of Adjusted 1989 Common Line /MOU Rate

1989

Common Line

Access Rev (CL)	\$9,807,040
Net Return	\$1,912,525
ANI	\$16,486,864
FIT/SLIT	0.557691
ROR	11.60%
Net Return at 11.25%	\$1,854,772
Earnings above 11.25%	\$57,753
Revenue above 11.25%	\$89,962
CL Rev at 11.25%	\$9,717,079
Inside Wire	\$1,212,150
IW ANI	\$718,827
IW Excess Rev	\$3,922
IW at 11.25%	\$1,208,228
CPE	\$0
CPE ANI	\$0
CPE Excess Rev	\$0
CPE at 11.25%	\$0
CL less IW & CPE change at 11.25%	\$8,508,851
COE Cat 3 - Dems	\$32,688
COE Cat 3 - Dems less CPE and IW	\$28,624
COE Cat 4 - Terms	\$0
COE Cat 4 - Terms less CPE and IW	\$0
Acct 662	\$0
Acct 662 less CPE and IW	\$0
Acct 645	\$0
Acct 645 less CPE and IW	\$0
SPF Phase-Down	(\$350,097)
SPF Phase-Down less CPE and IW	(\$306,566)

Conformance	\$0
Conformance less CPE and IW	\$0
High Cost Fund	\$0
Inside Wire Amortization	\$0
CPE Phasedown	\$0
WATS DA: 1986-7	\$0
Reserve Def Amort	(\$150,240)
Tax Reform	\$0
Tax Reform less CPE and IW	\$0
FASB 87	\$0
FASB 87 less CPE and IW	\$0
Deferred Tax	\$42,192
Deferred Tax less CPE and IW	\$36,946
Other	(\$181)
Other less CPE and IW	(\$158)
Total Cum Exog Cost less CPE and IW	(\$391,394)
CL Rev Adj for Exo Changes	\$8,117,457
Prem MOU	271,726,626
Non-Prem MOU	7,786,749
Total MOU	279,513,375
WATS DA	NA
Tot MOU less WATS DA	279,513,375
Total Stim MOU =	67,370,700
Total MOU Adj for Incl of Stim	212,142,675
Subscriber Lines	125,595,961

CL/MOU Rate Adj for Exo Changes	\$0.0383
CL/MOU Rate Unadj	\$0.0351
CL/Loop Rate Adj for Exo Changes	\$64.63
CL/Loop Rate Unadj	\$78.08

Computation of Adjusted 1988 Common Line /MOU Rate

1988

Common Line

Access Rev (CL)	\$10,012,595
Net Return	\$2,030,613
ANI	\$16,589,979
FIT/SLIT	0.515152
ROR	12.24%
Net Return at 11.25%	\$1,866,373
Earnings above 11.25%	\$164,241
Revenue above 11.25%	\$248,850
CL Rev at 11.25%	\$9,763,745

Inside Wire	\$1,354,704
IW ANI	\$985,445
IW Excess Rev	\$14,782
IW at 11.25%	\$1,339,922

CPE	\$0
CPE ANI	\$0
CPE Excess Rev	\$0
CPE at 11.25%	\$0

CL less IW & CPE change at 11.25%	\$8,423,823
--------------------------------------	-------------

COE Cat 3 - Dems	\$46,705
COE Cat 3 - Dems less CPE and IW	\$40,295

COE Cat 4 - Terms	\$9,072
COE Cat 4 - Terms less CPE and IW	\$7,827

Acct 662	(\$7,075)
Acct 662 less CPE and IW	(\$6,104)

Acct 645	\$0
Acct 645 less CPE and IW	\$0

SPF Phase-Down	(\$470,923)
SPF Phase-Down less CPE and IW	(\$406,296)

Conformance	\$0
Conformance less CPE and IW	\$0
High Cost Fund	\$205,301
Inside Wire Amortization	\$0
CPE Phasedown	\$0
WATS DA: 1986-7	\$0
Reserve Def Amort	(\$118,217)
Tax Reform	(\$37,341)
Tax Reform less CPE and IW	(\$32,217)
FASB 87	\$0
FASB 87 less CPE and IW	\$0
Deferred Tax	\$42,192
Deferred Tax less CPE and IW	\$36,402
Other	(\$181)
Other less CPE and IW	(\$156)
Total Cum Exog Cost less CPE and IW	(\$683,766)
CL Rev Adj for Exo Changes	\$7,740,057
Prem MOU	235,269,424
Non-Prem MOU	9,197,903
Total MOU	244,467,327
WATS DA	NA
Tot MOU less WATS DA	244,467,327
Total Stim MOU =	49,386,699
Total MOU Adj for Incl of Stim	195,080,628
Subscriber Lines	121,654,374

CL/MOU Rate Adj for Exo Changes	\$0.0397
CL/MOU Rate Unadj –	\$0.0410
CL/Loop Rate Adj for Exo Changes	\$63.62
CL/Loop Rate Unadj	\$82.30

Computation of Adjusted 7/86-6/87 Common Line /MOU Rate

7/86-6/87

Common Line

Access Rev (CL)	\$10,213,735
Net Return	\$2,066,210
ANI	\$17,655,505
FIT/SLIT	0.665279
ROR	11.70%
Net Return at 11.25%	\$1,986,244
Earnings above 11.25%	\$79,966
Revenue above 11.25%	\$133,165
CL Rev at 11.25%	\$10,080,570
Inside Wire	\$1,116,361
IW ANI	\$944,570
IW Excess Rev	\$7,124
IW at 11.25%	\$1,109,237
CPE	\$222,659
CPE ANI	\$273,660
CPE Excess Rev	\$2,064
CPE at 11.25%	\$220,595
CL less IW & CPE change at 11.25%	\$8,750,738
COE Cat 3 - Dems	\$54,732
COE Cat 3 - Dems less CPE and IW	\$47,511
COE Cat 4 - Terms	\$11,997
COE Cat 4 - Terms less CPE and IW	\$10,414
Acct 662	(\$26,719)
Acct 662 less CPE and IW	(\$23,195)
Acct 645	\$0
Acct 645 less CPE and IW	\$0
SPF Phase-Down	(\$643,161)
SPF Phase-Down less CPE and IW	(\$558,315)

Conformance	(\$95,687)
Conformance less CPE and IW	(\$83,064)
High Cost Fund -	\$89,309
Inside Wire Amortization	\$0
CPE Phasedown	\$0
WATS DA: 1986-7	\$0
Reserve Def Amort	(\$40,216)
Tax Reform	(\$490,948)
Tax Reform less CPE and IW	(\$426,182)
FASB 87	(\$49,261)
FASB 87 less CPE and IW	(\$42,762)
Deferred Tax	\$42,192
Deferred Tax less CPE and IW	\$36,626
Other	(\$181)
Other less CPE and IW	(\$157)
Total Cum Exog Cost less CPE and IW	(\$1,168,649)
CL Rev Adj for Exo Changes	\$7,582,088
Prem MOU	186,034,212
Non-Prem MOU	12,844,050
Total MOU	198,878,262
WATS DA	NA
Tot MOU less WATS DA	198,878,262
Total Stim MOU =	33,392,060
Total MOU Adj for Incl of Stim	165,486,202
Subscriber Lines	116,063,662